Filed: December 12, 2003

IN THE SPECIFICATION:

Please amend the Specification of the above-identified application as

follows.

Please amend the paragraph beginning on page 1, line 2 as follows.

-- The invention relates to a method and apparatus for applying

photo-luminescent pigment to a substrate surface, more particularly for applying

photo-luminescent pigment to aluminum or other metal strips used, for example,

as stair nosings. The invention also relates to a product produced by saidthe

method and apparatus.--

Please amend the paragraph beginning on page 2, line 11 as follows.

--It is known to apply a photo-luminescent pigment to a rope, tape or

fabric. This photo-luminescent pigment is stimulated by visible light and remains

luminescent for a considerable period after the light source is removed. The

problem with tape or fabric impregnated with pigment is that it lacks durability for

heavy wear areas such as walkways or stairs.--

Please amend the paragraph beginning on page 3, line 7 as follows.

--According to a first aspect of the invention there is provided a

method of applying photo-luminescent pigment to a substrate, saidthe method

including:--

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Please amend the paragraph beginning on page 3, line 10 as follows.

--preparing a dry powder formulation comprising including, at least,

a photo-luminescent pigment and a carrier/fixer;--

Please amend the paragraph beginning on page 4, line 4 as follows.

--Preferably the dry powered powdered formulation may be heated to

between, substantially, 160 to 210 degrees centigrade, or to a temperature

recommended by the manufacturer of the carrier/fixer, for approximately 10 to 20

minutes or until the formulation is molten. The molten formulation may be cooled

after heating.--

Please amend the paragraph beginning on page 4, line 15 as follows.

--According to a second aspect of the invention there is provided an

apparatus for applying photo-luminescent pigment to a substrate, saidthe apparatus

including:--

Please amend the paragraph beginning on page 8, line 14 as follows.

--While a number of products suitable for such a photo-luminescent

formulation may be apparent to a skilled artisonartisan, the products used in the

current invention are LUMINOVA, a photo-luminescent pigment from Nemoto

Japan; and TPE, a carrier/fixer produced by Dulux New Zealand. The flow and

de-gassing additives are also produced by Dulux New Zealand .--

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Please amend the paragraph beginning on page 10, line 18 as

follows.

--A drive system is used to push individual substrate pieces

passed past (below) a hopper 2. This drive system may be a human operator, or it

may be a system of motorised rollers 11 that engage with one or two faces of the

individual substrate pieces. Also, a support roller 3 may be motorised to drive the

extrusion 1 below hopper 2. In an automated embodiment of the apparatus the

motorised rollers 11 and 3 may be operated from a variable speed motor drive

which may interface with a controller.--

Please amend the paragraph beginning on page 11, line 3 as follows.

-- The hopper section 10 comprises includes the hopper 2, preferably

with steep sides to avoid build-up of product, that might hold typically, but not

exclusively, 1 to 1.5 kg of dry powder formulation. The hopper 2 shown in Figure

1 is cut-away for illustration purposes.--

Please amend the paragraph beginning on page 11, line 8 as follows.

--An adjustable mounting bracket 4 may also be included to enable

the hopper 2 to be located in the correct position so that a bottom orifice 5 lines up

with the-channels or depressions 6 in the extrusion 1. Orifice 5 may be formed in

a die 9, which is adapted to suit the extrusion 1 being used. The die 9 would

abuttabut snugly over extrusion 1 so that no formula was spilled or wasted.

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Various dies may be interchangeable to provide for different substrates. The dies

may have more than one orifice – for example a two orifice die for a two channel

or depression substrate.--

Please amend the paragraph beginning on page 11, line 18 as

follows.

-- There is a compressible foam rubber insert 7 between the hopper

body 12 and the bottom orifice 5, which suspends the bottom orifice 5-in such a

way that it will still seal against the extrusion 1 even if the extrusion 1 is not

perfectly lined up with the hopper-2.--

Please amend the paragraph beginning on page 12, line 1 as follows.

--AThe support roller 3 is mounted directly beneath the bottom

orifice 5 of the hopper 2 to support the extrusion 1 without imposing excessive

friction. This allows the extrusions extrusion 1 to be readily moved through the

system. Roller 3 may be motorised but this is not essential as its main function is

to hold the extrusion 1 up to the orifice 5. A bristle brush (not shown) may be

mounted directly below the roller 3, with its bristles in contact with the roller, so

that any powder that falls onto the roller is subsequently brushed off and will not

to-build up on the roller-3.--

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Please amend the paragraph beginning on page 13, line 7 as follows.

--In an automated apparatus the oven 12 would most preferably be a continuous tunnel process so that after the individual substrate pieces have had their channels or depressions filled with the dry powder formulation they immediately enter athe curing tunnel 12 that rapidly heats them to typically 160° to 200°C for a sufficient time to turn the dry powder formulation into a molten mix and bond it to the substrate. The individual substrate pieces then emerge from the opposite end of the tunnel. A cooling tunnel 13 may also be provided.--

Please amend the paragraph beginning on page 13, line 16 as follows.

--The curing tunnel\_12 could be either a hot-air type oven or an infra-red oven. At present the applicant has found that the hot-air type oven produces the best result. However, infra-red ovens provide a much faster and more direct heating method. The problem with infra-red ovens is that the rapid localised heating causes distortion of the substrate material. The degree of distortion is dependent on the form and type of substrate material. It is envisaged that with improvements in infra-red heating technology and substrate materials this will become the preferred method.--

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Please amend the paragraph beginning on page 14, line 13 as follows.

--A representative piece of substrate is placed on the guide rail\_8 close to the empty hopper\_2, then passed into the gap between the bottom orifice\_5 of the hopper and the support roller\_3. The position of the hopper assembly\_10 is adjusted as necessary to ensure that the bottom orifice\_5 lines up with the channels or depressions\_6 in the substrate, and there are no gaps to either side that would let powder escape. The hopper\_2 is then filled with a thoroughly mixed quantity of the dry powder formulation.--

Please amend the paragraph beginning on page 14, line 21 as follows.

--The first piece of "production" substrate is then placed on the guide rail 8, immediately behind the representative piece of substrate, and moved towards the hopper assembly 10. In this way it pushes the representative piece of substrate through and passedpast the hopper assembly 10 and onto the guide rail 8 on the other side of the hopper assembly. The representative piece of substrate can subsequently have the powder that has been applied to it removed by a vacuum cleaning head and then the substrate can be reused as a plug for the hopper's bottom orifice 5 whenever production is halted.--

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Please amend the paragraph beginning on page 15, line 8 as follows.

--Before the first piece of production substrate is pushed right

through the hopper assembly 10 the second piece of production substrate is picked

up off a magazine and placed on the guide rail 8 immediately behind the first piece

of production substrate. Once the first piece of production substrate is away from

the hopper assembly 10 it can be taken off the guide rail 8 and placed on racks

ready for oven curing.--

Please amend the paragraph beginning on page 15, line 15 as

follows.

-- The above step is then repeated until the oven racks are full. The

racks are placed in the oven 12 for the required curing cycle, then removed from

the oven and allowed to cool before final inspection and packaging.--

Please amend the paragraph beginning on page 15, line 19 as

follows.

--At regular intervals, as required, the hopper 2 is tapped to remove

voids in the powder and the hopper is refilled with thoroughly mixed dry powder

formulation.--

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Please amend the paragraph beginning on page 15, line 22 as follows.

--When the production run has finished, the representative piece of substrate can be reused as a plug for the hopper's bottom orifice 5 and finally any left-over powder can be removed from the hopper 2.--

Please amend the paragraph beginning on page 17, line 4 as follows.

--In a further embodiment the photo-luminescent formulation might be deposited within castellations, or recessed channels, of a insert strip which engages with the top surface of a step nosing. This would allow the photo-luminescent insert strip to be replaced without replacing the whole step noisingnosing.--

Please amend the paragraph beginning on page 17, line 9 as follows.

--Photo-luminescent formulation could also be deposited within castellations, or recessed channels, on stair and other handrails. The castellations, or recessed channels, carrying the photo-luminescent formulation may be part of a replaceable insert strip.--